

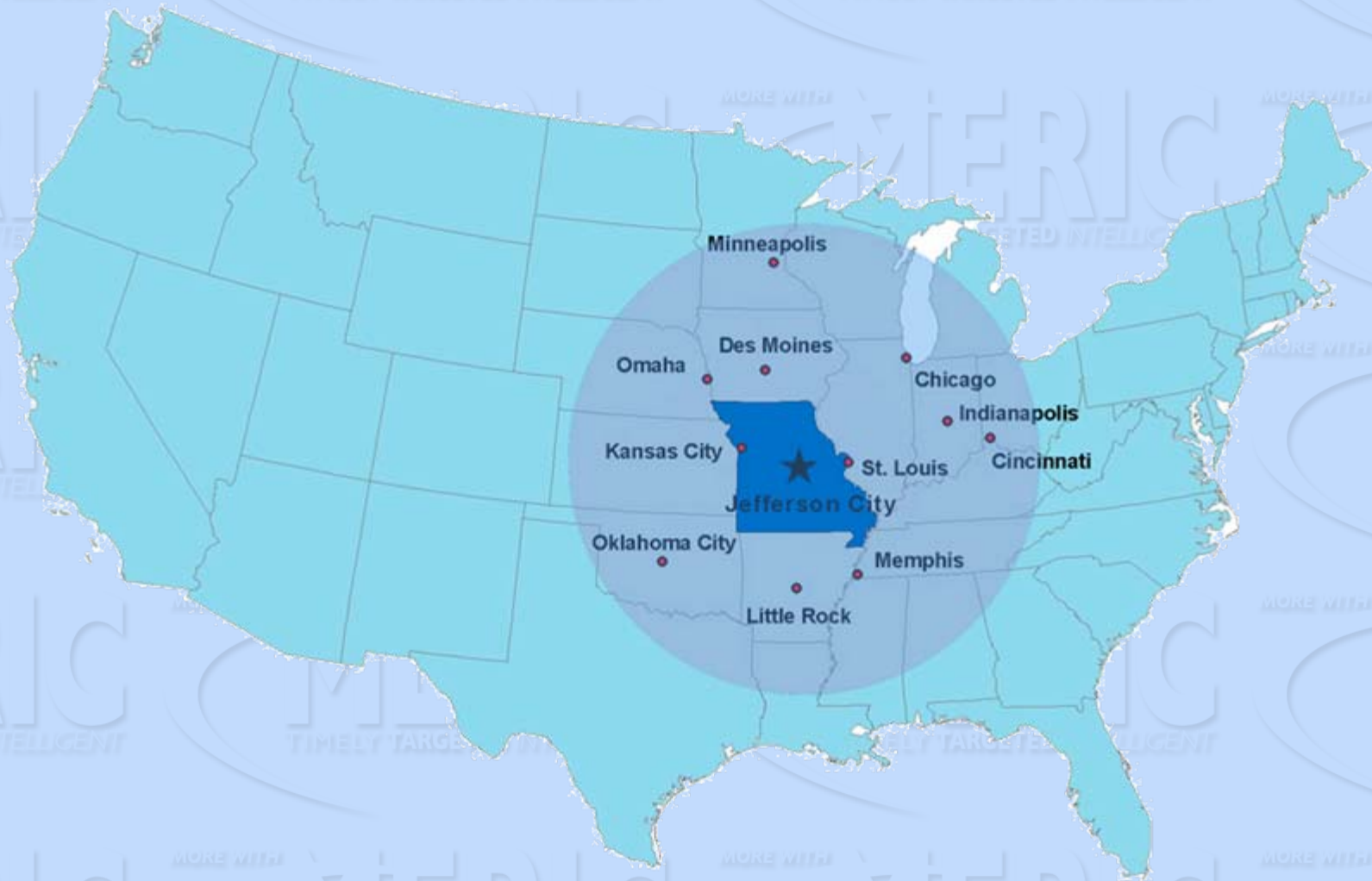
Addressing Talent Development Through Skills Gap Analysis

Mary Bruton & Marty Romitti
Missouri Economic Research and Information Center

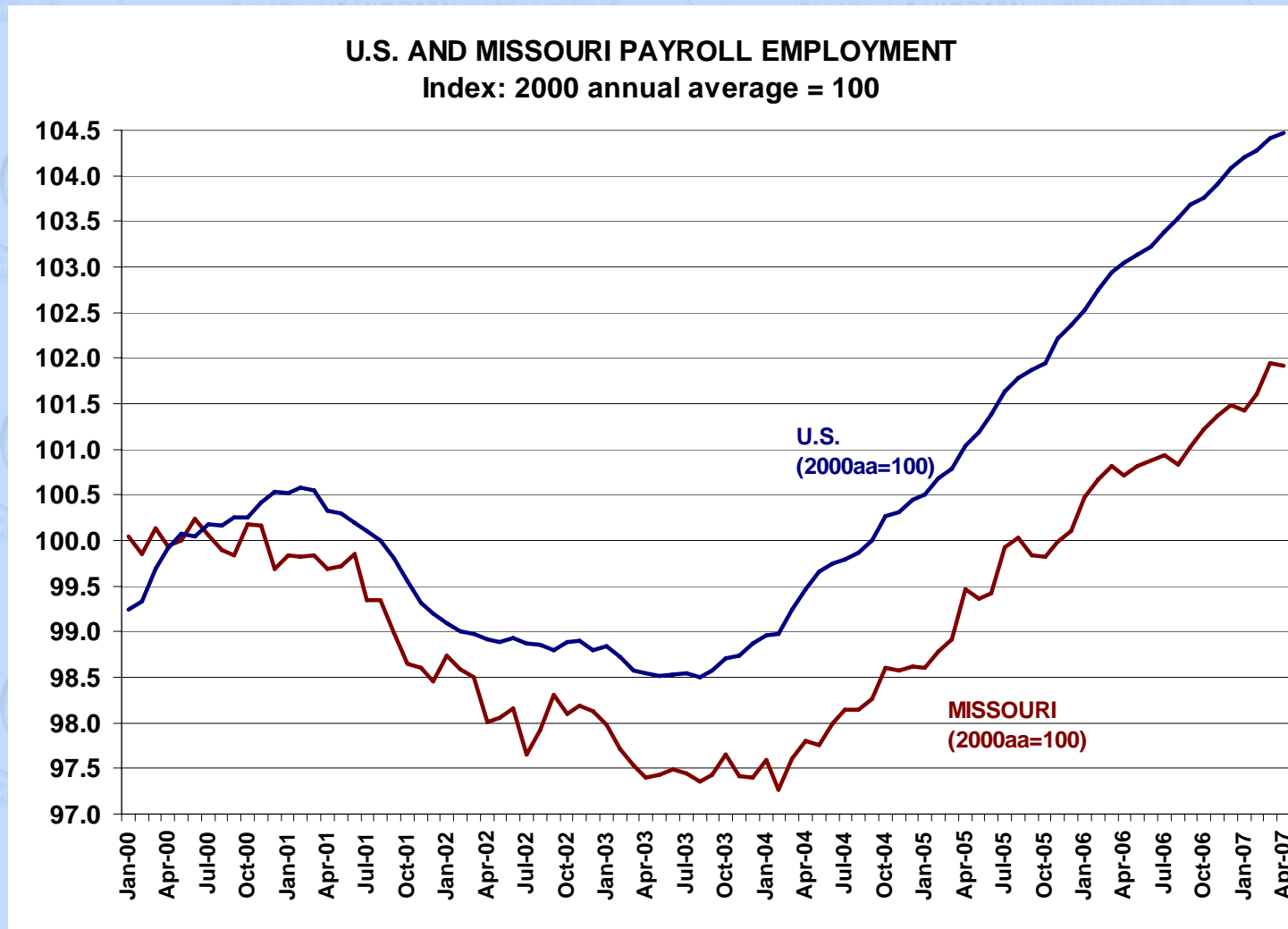
Marketing Missouri

- **State GDP of \$226 billion**
- **Highly diversified economy**
- **Productive and skilled workforce**
- **Low tax burden**
- **High quality of life**

Marketing Missouri



Employment



Employment growth in Missouri is below the U.S. rate.

Source: MERIC and U.S. Bureau of Labor Statistics

What Companies Want

Top Site Selection Factors Ratings* 2006

1	Labor costs	95.0
2	Highway accessibility	90.9
3	Corporate tax rate	90.8
4	State and local incentives	88.6
5	Availability of telecommunications services	88.3
6	Tax exemptions	86.7
7	Occupancy or construction costs	85.5
8	Availability of skilled labor	85.1
9	Energy availability and costs	82.4
10	Availability of high-speed Internet access	82.1
11	Cost of land	79.2
12	Low union profile	78.4
13	Proximity to major markets	76.9
14	Availability of land	73.3
15	Low crime rate	70.8

** All figures are percentages and are the total of "very important" and "important" ratings of the Area Development Corporate Survey and are rounded to the nearest tenth of a percent.*



Bottom-line factors still dominate when corporate executives plan new facilities, relocations, and expansions.

Innovation Age Prosperity Strategies

Factors and policies that boost prosperity:

- **Education Level**
- **Science and Technology Activity**
- **Export-oriented Industries**
- **Entrepreneurial Initiative**
- **Innovation across Industries/Sectors**
- **Reduction of Poverty and Inequality**

Source: CEOs for Cities and Milken Institute

Balanced Growth

Economic Share in Missouri by County

St. Louis County (20.7%) and Jackson County (11.8%) together tally nearly one-third of the state's economy.

Total Share

- Greater than 5.0%
- 1.1 to 5.0%
- 0.3 to 1.0%
- Less than 0.3%

Source: MERIC

Balanced Growth

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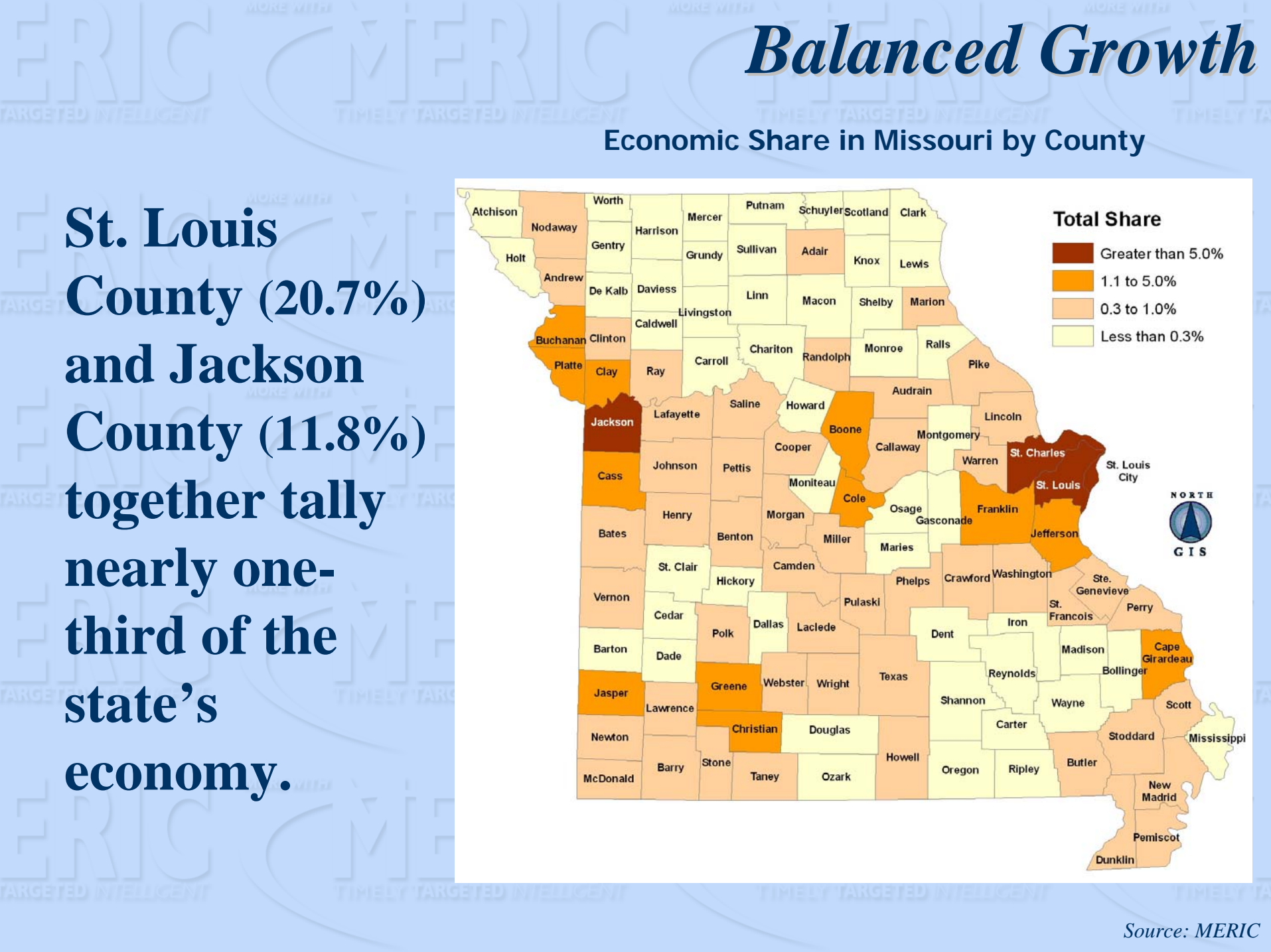
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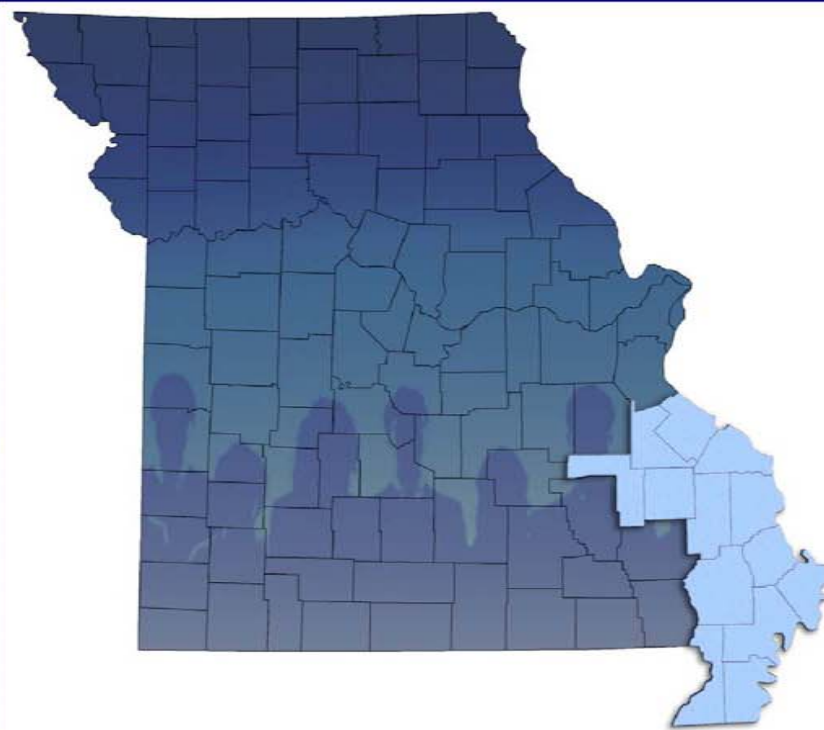


Skilled Workforce Initiative

- Regional Approach
- Needs Assessment Reports
- Competitive Application Process

Missouri Workforce Gap Analysis: Needs Assessment

Value Added Research With Customer Focus!



Southeast Workforce Investment Area

301 W. High St. Room 580, Jefferson City, MO
65102
Tel: 573-751-3633; Fax: 573-751-7160

MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT
MERIC
MISSOURI ECONOMIC RESEARCH & INFORMATION CENTER

DED Target Industries

- Financial Services
- Life Sciences
- Automotive
- Defense/Homeland Security
- Information Technology
- Agribusiness
- Energy
- Transportation/Logistics



Financial Services

Cluster Statistics

• Number of Businesses (2006)	9,769
• Number of Jobs (2006)	132,036
• Percent of Total Missouri Jobs (2006)	5.75%
• Average Annual Wages (2005)	\$52,206
• Location Quotient (2006)	1.04
• Percent Change from 2001 Location Quotient	-2.34%
• Net Percent Change in Jobs (2001-2006)	1.4%
• Total Change in Jobs (2001-2006)	1,798
<i>Employment Change from 2001 attributed to:</i>	
• National Factors	3,343
• Industry Factors	3,204
• Missouri's Competitiveness	-4,749

Financial Services

Top Five Industries

- Commercial banking
- Direct property and casualty insurers
- Real estate credit
- Securities brokerage
- Offices of certified public accountants

**54.5% of
Cluster Jobs**

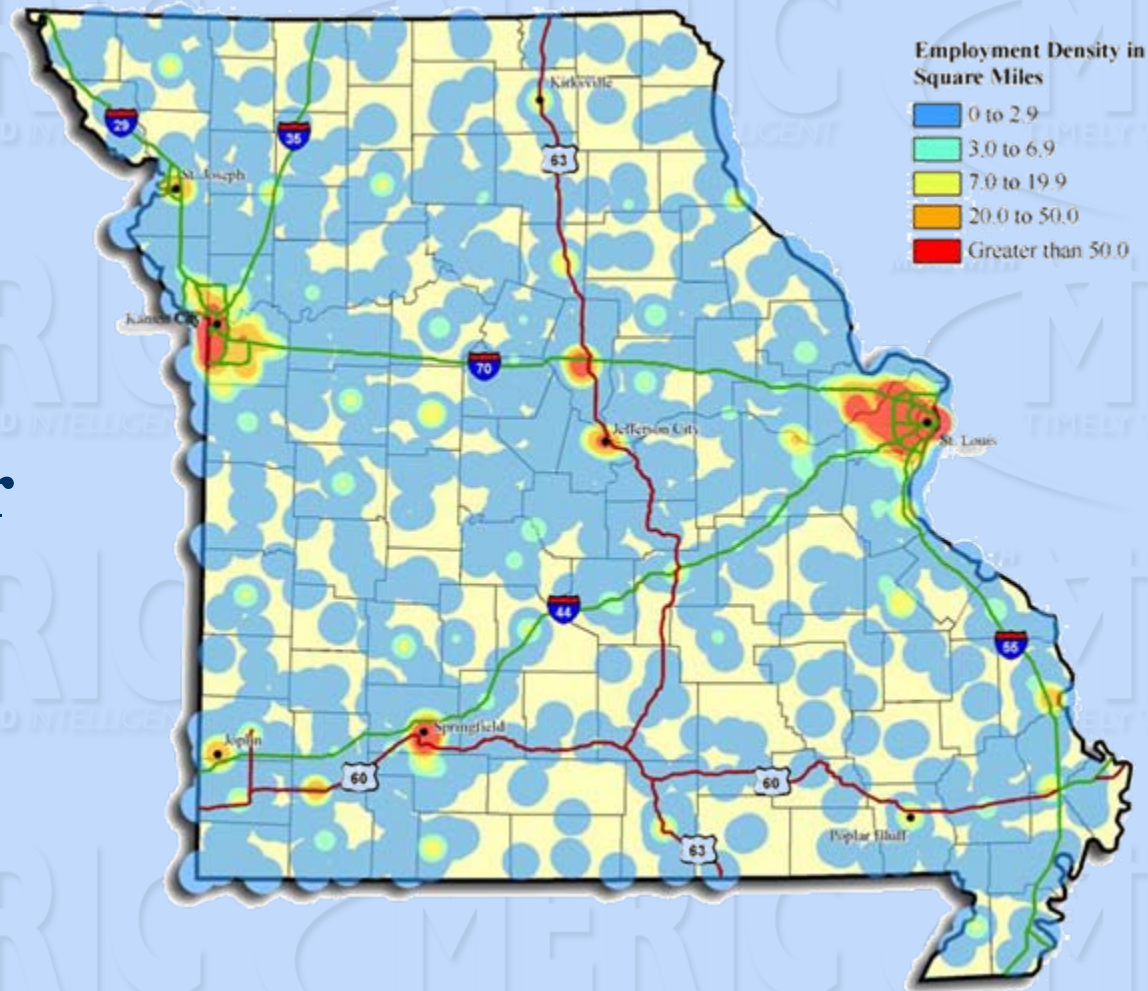
Targeted Occupations with Projected Growth and Current Wage

13% of Cluster Occupations	Current Wage	Projected Growth 2004–2014
Computer Systems Analysts	\$66,990	19.10%
Claims Adjusters, Examiners, and Investigators	\$45,220	16.70%
Customer Service Representatives	\$29,480	16.00%
Business Operations Specialists	\$52,310	15.80%
General and Operations Managers	\$92,330	11.50%

Financial Services

Employment Density

The Financial Services sector employs Missourians not only in the major metropolitan areas, but all over the state.



Missouri Energy



Major Electric Power Plants (≥ 100 MW)		Renewable Energy Potential
Electricity Transmission Line (≥ 345 kV)	Oil Seaport ♦ Oil Import Site	Solar - (≥ 6.0 kWh/m ² /day)
Petroleum Refinery	Nuclear	Hydroelectric
Coal Mine, Surface	Petroleum	Wind
Coal Mine, Underground	Coal	Wood
Natural Gas Flow (1 mile band width = 100 million cubic feet/day)	Biomass	Geo. - (≥ 80 milliwatts/m ²)
	Natural Gas	
	Hub	
	Geothermal	



Bagnell Dam

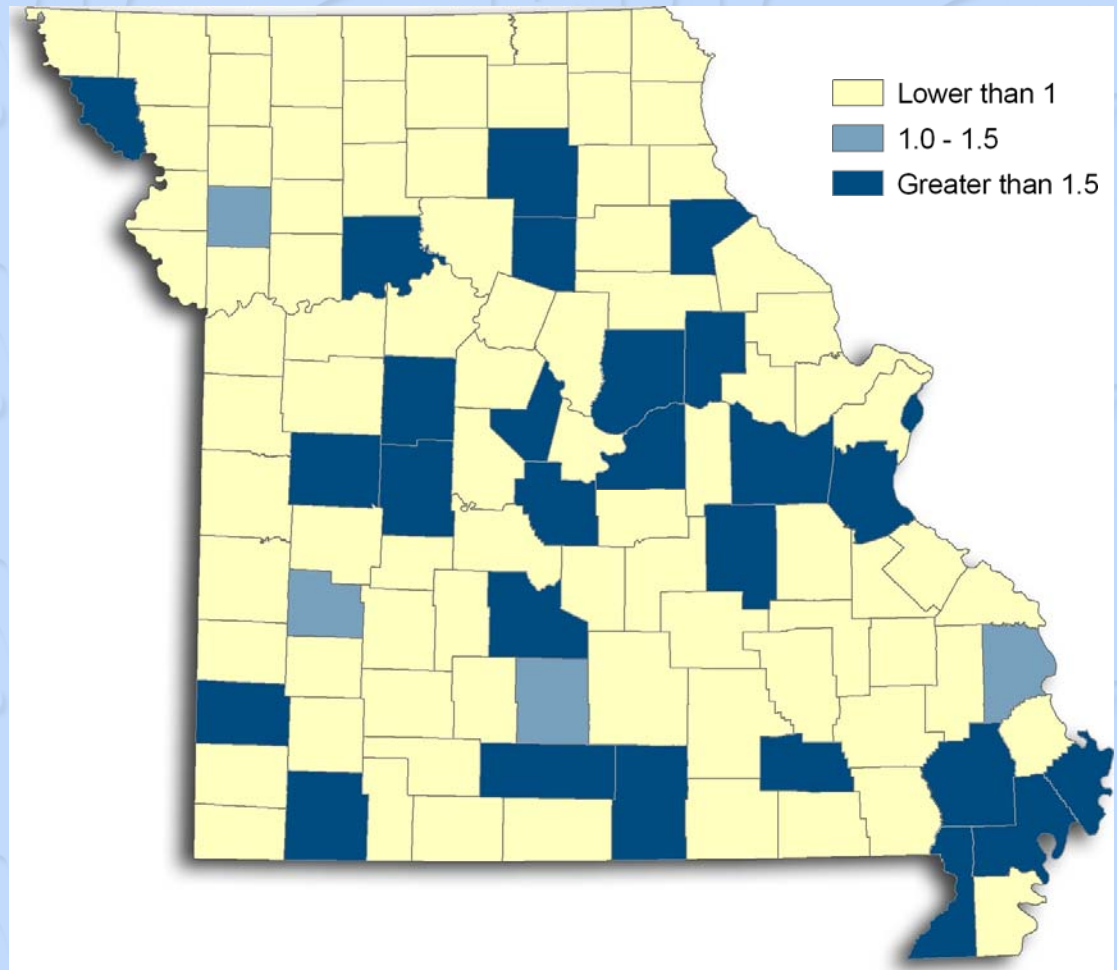


Missouri Energy

Top Concentrations

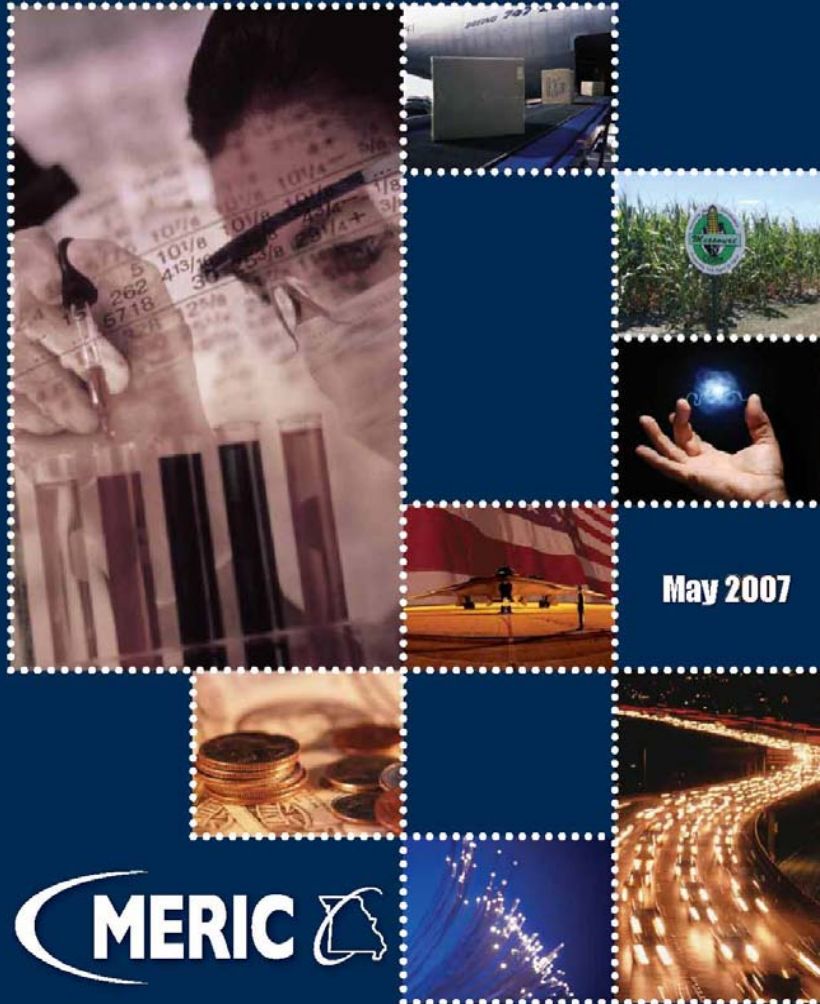
- Motor & Generator Mfg.
- Transformer Mfg.
- Energy & Comm. Wire Mfg.
- Environmental Control Mfg.
- Fossil Fuel Power Making
- Aluminum Rolling
- Switchgear Mfg.
- Power & Comm. Construct.
- Ethyl Alcohol Mfg.
- Hydro Power Making

Location Quotient by County (2006)



Looking To The Future

Missouri Targeted Industry Clusters



May 2007



WorkKeys® and Projections

- Missouri the first state to merge data (n = 777)
- Occupational projections and WorkKeys® skills
- Useful for career/education planning and regional skills analysis

Working Together

A collaboration between MERIC and ACT

The merging of WorkKeys® skill scores and Missouri occupational projections data represents a landmark collaborative effort between ACT and MERIC. The merged information was established for developmental purposes and reflects the increasing importance of connecting WorkKeys® score feedback and localized labor market information for career and educational planning.

ACT is an independent, not-for-profit organization that provides numerous assessments and services in the broad areas of education and workforce development. Each year, ACT serves millions of people in the education, business, and government sectors.



MERIC is the research arm of the Missouri Department of Economic Development. MERIC provides innovative analyses and assistance to policymakers and the public, including studies of the state's targeted industries and economic development initiatives. Other MERIC research includes economic condition reports and labor market information produced in cooperation with the U.S. Department of Labor.

Missouri Economic Research & Information Center



www.MissouriEconomy.org

Telephone: 1-866-225-8113

Email: mericdata@ded.mo.gov

WorkKeys® for Missouri

Outlook 2014



MORE WITH

MERIC

TIMELY TARGETED INTELLIGENT

Grade A Careers

Above average salaries, growth & openings

Now High school diploma & on-the-job training	Avg. Annual Openings	Average Wage
Customer Service Representatives	1,241	\$29,050
Sales Reps., Wholesale & Manufacturing	1,069	\$53,220
Oper. Engineers & Other Constr. Equip. Oper.	348	\$40,550
Sales Reps., Technical & Scientific Products	305	\$63,690
Painters, Construction & Maintenance	266	\$37,150
Sales & Related Workers, All Other	75	\$40,800
Truck Drivers, Heavy & Tractor-Trailer	1,027	\$36,260
Maintenance & Repair Workers, General	890	\$32,260
Executive Secretaries & Administrative Assistants	683	\$35,870
Sales Reps., Services, All Other	178	\$48,900

Next 2-4 years of education beyond high school	Avg. Annual Openings	Average Wage
Registered Nurses	2,319	\$49,690
Real Estate Sales Agents	226	\$58,220
Carpenters	1,049	\$41,520
Fire Fighters	372	\$41,000
Plumbers, Pipefitters & Steamfitters	361	\$51,750
First-Line Superv. of Const. Trade & Extrac. Worker	245	\$55,850
Licensed Practical & Licensed Vocational Nurses	578	\$30,910
Police & Sheriff's Patrol Officers	540	\$38,380
Electricians	392	\$50,250
Computer Support Specialists	231	\$38,950

Later 4+ years of education beyond high school	Avg. Annual Openings	Average Wage
Computer Software Engineers, Applications	489	\$73,690
Network Systems & Data Comm. Analysts	308	\$59,160
Computer Systems Analysts	302	\$66,340
Network & Computer Systems Administrator	262	\$56,840
Business Operations Specialists, Other	422	\$51,790
Lawyers	323	\$109,030
Elementary School Teachers	1,100	\$36,330
Secondary School Teachers	925	\$39,510
General & Operations Managers	885	\$87,900
Accountants & Auditors	743	\$54,430

WorkKeys® Skills

Skill requirements for Grade A Careers

Applied Mathematics	Locating Information	Reading for Information
4	4	4
5	4	5
3	4	3
4	4	4
3	3	3
4	4	4
3	4	3
4	4	4
4	4	4
4	4	4

Applied Mathematics	Locating Information	Reading for Information
4	4	5
5	4	5
5	5	4
4	5	4
4	4	4
5	4	4
4	4	4
4	4	5
4	4	4
5	4	5

Applied Mathematics	Locating Information	Reading for Information
7	5	5
6	5	5
5	5	5
5	5	5
5	4	5
4	5	7
3	4	4
4	5	5
5	5	5
6	5	5

About WorkKeys®

Interpreting skills scores

WorkKeys® is a national workforce development system that compares a worker's skills with the skills required to successfully perform a specific job. Scores are provided for three different core skill sets. Visit the ACT website for more information about these skill sets:

Applied Mathematics

www.act.org/workkeys/assess/math/levels.html

Locating Information

www.act.org/workkeys/assess/locate/levels.html

Reading for Information

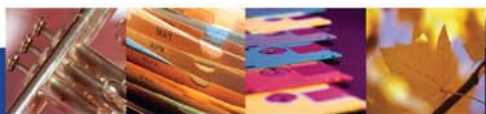
www.act.org/workkeys/assess/reading/levels.html

A combination of these three scores determines the level of Missouri career readiness certification for an individual:

- Gold - scores at least level 5 in each
- Silver - scores at least level 4 in each
- Bronze - scores at least level 3 in each

The skill levels provided for careers are estimated based on ACT's DISCOVER-based occupations populated with WorkKeys® score estimates, available 2005 WorkKeys® job analyses using samples of convenience, O*NET occupational data, and the recommendations of expert raters.

WorkKeys®



Missouri Career Exploration Tool



Missouri Occupational Employment Projections

Step 1: Choose Dataset*

☐ Short-term Data

☒ Long-term Data

*Short-term projections are based on a two year projection and are available for 2006-08.

Long-term projections are based on a ten year projection and are available for 2004-2014.

Step 2: Select Area and/or Occupation** (Please select only one occupational search option)

A. Select Area and/or

B. Find Occupation

By Keyword:

Or by SOC Code:

Or Browse by Title: (Hold ctrl key to select/delete more than one item)

111011 Chief Executives

111021 General and Operations Managers

112011 Advertising and Promotions Managers

**Selection of a specific occupation eliminates the ability to filter by outlook, education or WorkKeys skill score in Step 3.

Step 3: (Optional) Specify Outlook, Education/Training, and/or WorkKeys® Skill Score****

A. Good Outlook***

☐ On ☒ Off

B. Education/Training

Any Educational Attainment Level

First professional degree

Doctoral degree

C. WorkKeys Score

Applied Mathematics

Reading for Information

Locating Information

***Good Outlook includes occupations with a Career Grade of A+ through B-.

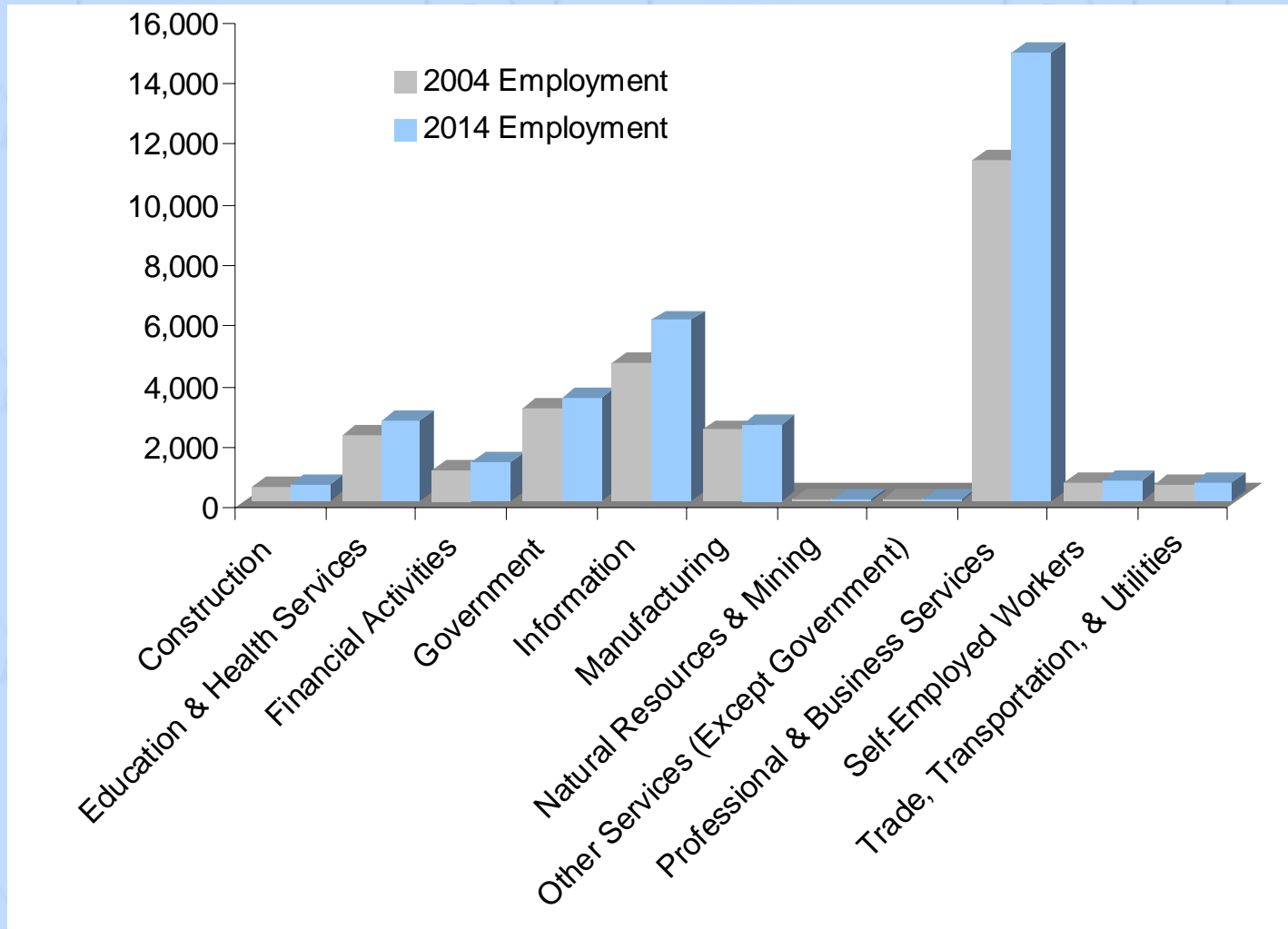
Career Grades are based on a combination of percent change, openings and wages.



Math and Science Intensive Occupations

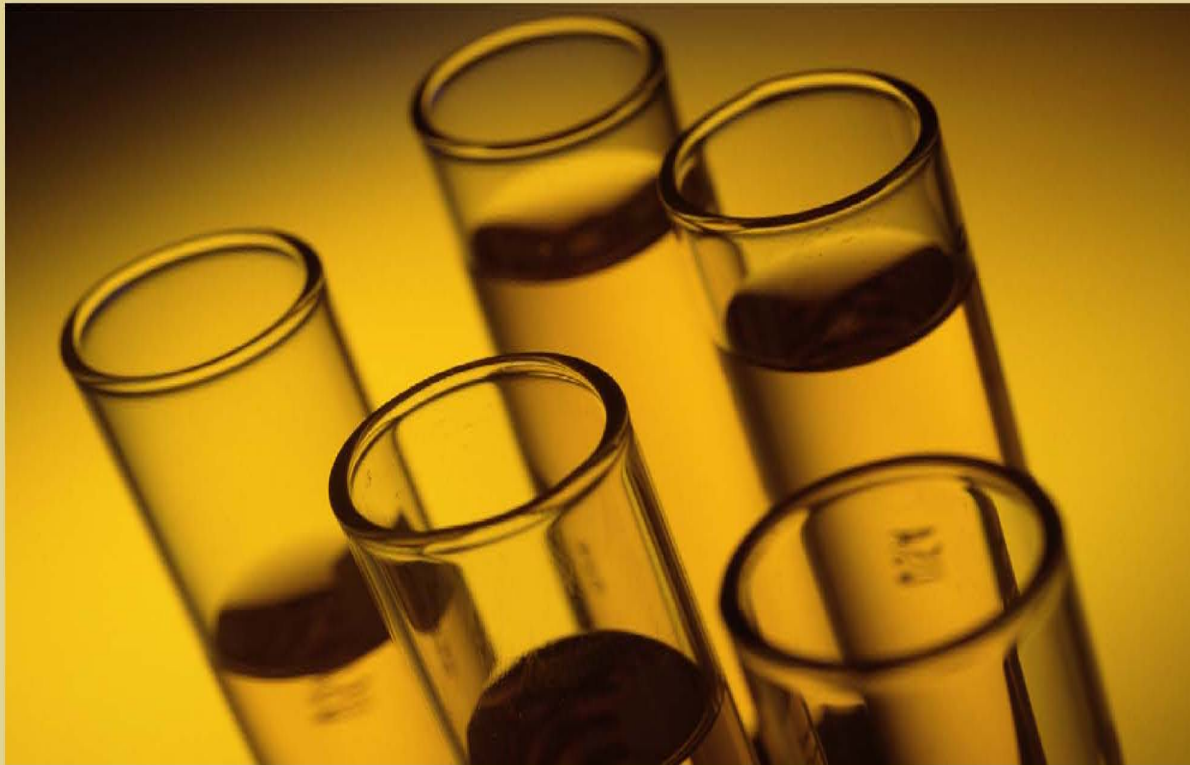
- Pinpoint skills for innovative industries
- Analyzed occupations with high math/science skills
- Data used from:
 - OES
 - O*NET
 - Occupation/Industry Projections

Industry Employment for Math-Intensive Occupations



Source: 2004-2014 Long-term Industry Projections, MERIC

Gateway Skills 2007: Mathematics & Science – Intensive Occupations



Next Steps

- Industry Clusters/Career Ladders
 - Partner – Elementary & Secondary Education
- Industry Councils/Specialists
 - Partner – Economic Development
- Job Vacancy Survey
 - Partner – Univ. of Missouri St. Louis

Conclusion

- Conducting Innovative and Needed Analysis
- Collaborating with Stakeholders on Projects
- Creating LMI that is Used and Valued in MO

www.missourieconomy.org